

APPENDIX D: DEVELOPMENT COST ESTIMATES

Following are development cost estimates for the proposed action and alternatives as of June 1998. These cost estimates are rough NPS class C estimates based on the costs of similar facilities constructed by the Park Service in the Pacific west area through federal government contracts. Actual costs may be higher or lower depending on the final design, site conditions, and the contracting agency. Facilities may be constructed by the National Park Service, the California Department of Parks and Recreation, or some other entity such as a private or nonprofit corporation. Day labor projects using park staff or volunteers would have lower costs than those shown below. Many assumptions on sizes and quantities had to be made to develop this cost estimate. These quantities will be refined during follow-up site-

specific planning and design efforts and may be different than those used for this estimate.

Project planning includes surveys, more detailed site planning, facility design, construction documents, and additional project compliance activities (25% of net). Facility costs were developed using the NPS Denver Service Center cost estimating database.

These estimates are intended primarily to assist in comparing the relative costs of the alternatives in the environmental impact statement and are not intended for use in developing budget requests without some additional planning or design work. Some figures also may not add up due to rounding.

TABLE D-1: ALTERNATIVE 1, PROPOSED ACTION DEVELOPMENT COSTS, JUNE 1998

Item	Gross Construction Cost	Construction Planning	Total Cost
Visitor Use and Interpretation			
Tall Trees Redesign parking area (20 cars)	\$27,000	\$5,000	\$32,000
Fern Canyon Relocate parking area 25-car parking area (gravel) 50' access road (gravel) gate vault toilet (large) site restoration (.5 acre)	 \$34,000 7,000 3,000 68,000 29,000	 \$6,000 1,000 1,000 13,000 6,000	 \$40,000 8,000 4,000 81,000 35,000
Crescent Beach Relocate parking area 25-car parking area (paved) 100' access road (paved) gate vault toilet (large) site restoration (.5 acre)	 \$83,000 25,000 3,000 68,000 29,000	 \$16,000 5,000 1,000 13,000 6,000	 \$99,000 30,000 4,000 81,000 35,000
Bald Hills Add 5 waysides 15-car parking area (total) (paved) 5 wayside exhibits 200' access roads (paved)	 \$50,000 23,000 50,000	 \$9,000 4,000 10,000	 \$59,000 27,000 60,000
Subtotal	\$499,000	\$96,000	\$595,000
RECREATIONAL ACTIVITIES			
Camping Provide additional campsites in campgrounds: 75 new sites (complete with comfort stations, roads, parking, and utilities)	\$737,000	\$141,000	\$878,000
Hiking Trails Construct 100 miles of trails (foot) 50 bridges (ave. 25' ea.) 100 parking spaces (in 10 trailheads) 400' access roads (gravel) 10 vault toilets (standard)	 \$6,550,000 737,000 136,000 55,000 301,000	 \$1,250,000 141,000 23,000 11,000 58,000	 \$7,800,000 878,000 159,000 66,000 359,000
Equestrian Trails Construct 30 miles of trails 15 bridges (ave. 25' ea.) 20 parking spaces (in 2 trailheads) 80' access roads (paved) 2 vault toilets (standard)	 \$1,965,000 221,000 66,000 20,000 60,000	 \$375,000 42,000 13,000 4,000 12,000	 \$2,340,000 263,000 79,000 24,000 72,000
Mountain Bike Trails Construct 30 miles of trails 15 bridges (ave. 25' ea.) 20 parking spaces (in 2 trailheads) 80' access roads (paved) 2 vault toilets (standard)	 \$1,965,000 221,000 66,000 20,000 60,000	 \$375,000 42,000 13,000 4,000 12,000	 \$2,340,000 263,000 79,000 24,000 72,000
Picnic Sites at Bald Hills 30 picnic sites (total) 30 parking spaces (in 5 areas) (paved) 200' access roads (paved) 5 vault toilets (standard)	 \$197,000 99,000 50,000 151,000	 \$38,000 19,000 10,000 29,000	 \$235,000 118,000 60,000 180,000
Subtotal	\$13,677,000	\$2,612,000	\$16,289,000
ACCESS AND CIRCULATION			

Item	Gross Construction Cost	Construction Planning	Total Cost
Davison Road Minor upgrade (includes surface improvements, straightening some curves, widening short sections, installing turnouts), 3 miles (gravel)	\$1,061,000	\$203,000	\$1,264,000
Cal-Barrel Road Minor upgrade, 2.5 miles (gravel)	\$884,000	\$169,000	\$1,053,000
Jedediah Smith Redwoods State Park Entrance 600' paved access road 8-car parking area (paved) entrance kiosk (100 sf) utilities connection (200')	\$149,000 27,000 11,000 11,000	\$29,000 5,000 2,000 2,000	\$178,000 32,000 13,000 13,000
Stout Grove Resurface parking area (15 cars) Minor road upgrades (500')	\$15,000 39,000	\$3,000 8,000	\$18,000 47,000
Howland Hill Road Minor upgrade, 4 miles (gravel)	\$1,415,000	\$270,000	\$1,685,000
Del Norte Coast Redwoods State Park Entrance Construct new 2-mile paved access road 8-car parking area (paved) entrance kiosk (100 sf) connect utilities (200') Obliterate existing road (1 mile)	\$2,620,000 27,000 11,000 11,000 255,000	\$500,000 5,000 2,000 2,000 49,000	\$3,120,000 32,000 13,000 13,000 304,000
Subtotal	\$6,536,000	\$1,249,000	\$7,785,000
FACILITIES			
Primary Visitor Center Construct center (4,000 sf) interpretive media (1,000 sf) 60-car parking area (paved) access road (100') (paved) water connection (100') septic system landscape development (25% of net bldg cost)	\$1,362,000 328,000 199,000 25,000 4,000 66,000 341,000	\$260,000 63,000 38,000 5,000 1,000 13,000 65,000	\$1,622,000 391,000 237,000 30,000 5,000 79,000 406,000
Hiouchi Information Center Construct center (2000 sf) interpretive media (400 sf) 30-car parking area (paved) access road (300') (paved) water connection (300') septic system landscape development (25% of net building cost)	\$681,000 131,000 99,000 75,000 12,000 39,000 170,000	\$130,000 25,000 19,000 14,000 2,000 8,000 33,000	\$811,000 156,000 118,000 89,000 14,000 47,000 203,000
Operational Facilities Aubell: Construct shop/office (900 sf) Expand vehicle/equipment storage yard (1,000 sf) Requa Maintenance Facilities: Upgrade utility systems (water, sewer, & electric) Stabilize existing structures Construct support facilities (parking, storage, etc.)	\$177,000 20,000 1,572,000 1,179,000 328,000	\$34,000 4,000 300,000 225,000 62,000	\$211,000 24,000 1,872,000 1,404,000 390,000
Subtotal	\$6,808,000	\$1,301,000	\$8,109,000
ALTERNATIVE 1 GRAND TOTAL	\$27,520,000	\$5,258,000	\$32,778,000

TABLE D-2: ALTERNATIVE 2, NO ACTION, DEVELOPMENT COSTS, JUNE 1998

Item	Gross Construction Cost	Construction Planning	Total Cost
RECREATIONAL ACTIVITIES			
Camping			
Build four new campgrounds: 400 campsites total (complete with comfort stations, roads, parking, and utilities)	\$6,878,000	\$1,313,000	\$8,191,000
Provide additional campsites in existing campgrounds: 60 new sites total (complete)	590,000	113,000	703,000
Hiking Trails			
Construct 100 miles of trails	\$6,550,000	\$1,250,000	\$7,800,000
50 bridges (ave. 25' ea.)	\$737,000	\$141,000	\$878,000
100 parking spaces (in 10 trailheads)	331,000	63,000	394,000
400' access roads (paved)	100,000	19,000	119,000
10 vault toilets (std)	301,000	58,000	359,000
Equestrian Trails			
Construct 30 miles of trails	\$1,965,000	\$375,000	\$2,340,000
15 bridges (ave. 25' ea.)	221,000	42,000	263,000
20 parking spaces (in 2 trailheads)	66,000	13,000	79,000
80' access roads (paved)	20,000	4,000	24,000
2 vault toilets (std)	60,000	12,000	72,000
Relocate/redesign 12 miles of existing trail	550,000	105,000	655,000
Mountain Bike Trails			
Construct 30 miles of trails	\$1,965,000	\$375,000	\$2,340,000
15 bridges (ave. 25' ea.)	221,000	42,000	263,000
20 parking spaces (in 2 trailheads)	66,000	13,000	79,000
80' access roads (paved)	20,000	4,000	24,000
2 vault toilets (std)	60,000	12,000	72,000
ALTERNATIVE 2 GRAND TOTAL	\$20,701,000	\$3,954,000	\$24,655,000

TABLE D-3: ALTERNATIVE 3 DEVELOPMENT COSTS, JUNE 1998

Item	Gross Construction Cost	Construction Planning	Total Cost
VISITOR USE AND INTERPRETATION			
Fern Canyon			
Relocate parking area			
25 parking spaces (gravel)	\$34,000	\$6,000	\$40,000
50' access road (gravel)	7,000	1,000	8,000
gate	3,000	1,000	4,000
vault toilet (large)	68,000	13,000	81,000
site restoration (.5 acre)	29,000	6,000	35,000
Crescent Beach			
Relocate parking area: site restoration (.5 acre)	59,000	11,000	70,000
Subtotal	\$200,000	\$38,000	\$238,000
ACCESS AND CIRCULATION			
Newton P. Drury Scenic Parkway			
Relocate road through Elk Prairie: 1.5 mi. (paved)	\$2,358,000	\$450,000	\$2,808,000
Jedediah Smith Redwoods State Park Entrance			
Make access improvements to existing entrance (500 sy)	\$33,000	\$6,000	\$39,000
Widen entrance road (50 sy)	5,000	1,000	6,000
Construct new entrance station (100 sf)	15,000	3,000	18,000
Enlarge parking area by 5 cars	17,000	3,000	20,000
Subtotal	\$2,428,000	\$463,000	\$2,891,000
FACILITIES			
Primary Visitor Center			
Construct center (4000 sf)	\$1,362,000	\$260,000	\$1,622,000
interpretive media (1,000 sf)	328,000	63,000	391,000
60-car parking area (paved)	199,000	38,000	237,000
access road (300' paved)	75,000	14,000	89,000
water connection (300')	12,000	2,000	14,000
septic system	66,000	13,000	79,000
landscape development (25% of net building cost)	341,000	65,000	406,000
Operational Facilities			
Aubell:			
Construct shop/office (900 sf)	\$177,000	\$34,000	\$211,000
Expand vehicle/equipment storage yard (1000 sf)	20,000	4,000	24,000
Requa Maintenance Facilities:			
Upgrade utility systems (water, sewer, & electric)	1,572,000	300,000	1,872,000
Stabilize existing structures	1,179,000	225,000	1,404,000
Construct support facilities (parking, storage, etc.)	328,000	62,000	390,000
Subtotal	\$5,659,000	\$1,080,000	\$6,739,000
ALTERNATIVE 3 GRAND TOTAL	\$8,287,000	\$1,581,000	\$9,868,000

TABLE D-4. ALTERNATIVE 4 DEVELOPMENT COSTS, JUNE 1998

Item	Gross Construction Cost	Construction Planning	Total Cost
VISITOR USE AND INTERPRETATION			
Fern Canyon			
Expand and pave parking area:			
35 parking spaces (paved)	\$116,000	\$22,000	\$38,000
50' access road	12,000	2,000	14,000
vault toilet (large)	68,000	13,000	81,000
Crescent Beach			
Relocate and enlarge parking area:			
35 parking spaces (paved)	\$116,000	\$22,000	\$138,000
100' access road	25,000	5,000	30,000
gate	3,000	1,000	4,000
vault toilet (large)	68,000	13,000	81,000
Enlarge picnic area (25 sites)	164,000	31,000	195,000
Bald Hills			
Add 5 waysides:			
15 parking spaces (3 ea. in 5 areas - gravel)	\$20,000	\$4,000	\$24,000
5 wayside exhibits	23,000	4,000	27,000
200' access roads (gravel)	28,000	5,000	33,000
Subtotal	\$643,000	\$122,000	\$765,000
RECREATIONAL ACTIVITIES			
Camping			
Provide additional campsites in campgrounds: 150 new sites (complete)	\$1,474,000	\$282,000	\$1,756,000
Hiking Trails			
Construct 150 miles of trails (foot)	\$9,825,000	\$1,875,000	\$11,700,000
75 bridges (ave. 25' ea.)	1,105,000	211,000	1,316,000
150 parking spaces (in 10 trailheads)	203,000	39,000	242,000
600' access roads (gravel)	83,000	16,000	99,000
15 vault toilets (standard)	45,000	9,000	54,000
Equestrian Trails			
Construct 30 miles of trails	\$1,965,000	\$375,000	\$2,340,000
15 bridges (ave. 25' ea.)	221,000	42,000	263,000
20 parking spaces (in 2 trailheads)	66,000	13,000	79,000
80' access roads (paved)	20,000	4,000	24,000
2 vault toilets (standard)	60,000	12,000	72,000
Mountain Bike Trails			
Construct 60 miles of trails:	\$3,930,000	\$750,000	\$4,680,000
30 bridges (ave. 25' ea.)	442,000	84,000	526,000
40 parking spaces (2 trailheads)	133,000	25,000	158,000
160' access roads (paved)	40,000	8,000	48,000
4 vault toilets (standard)	121,000	23,000	144,000
Freshwater Spit			
Develop campground, 30 sites (complete)	\$472,000	\$90,000	\$562,000
Connect to water (1000')	38,000	7,000	45,000
Install septic system	66,000	13,000	79,000
Picnic Sites at Bald Hills			
30 picnic sites (total)	\$197,000	\$38,000	\$235,000
30 parking spaces (in 5 areas)	41,000	8,000	49,000
200' access roads (gravel)	28,000	5,000	33,000
5 vault toilets (standard)	151,000	29,000	180,000
Subtotal	\$20,726,000	\$3,958,000	\$24,684,000
ACCESS AND CIRCULATION			
Davison Road to Fern Canyon			
Widen and pave 8 miles of gravel road	\$8,384,000	\$1,600,000	\$9,984,000
Cal-Barrel Road			
Widen and pave 2.5 miles of gravel road	\$2,620,000	\$500,000	\$3,120,000

Appendix D: Development Cost Estimates

Item	Gross Construction Cost	Construction Planning	Total Cost
Jedediah Smith Redwoods State Park Entrance			
600' paved access road	\$149,000	\$29,000	\$178,000
8-car parking area	27,000	5,000	32,000
entrance kiosk (100 sf)	11,000	2,000	13,000
connect utilities (200')	11,000	2,000	13,000
Stout Grove			
Widen and pave 2 miles of access road	\$2,096,000	\$400,000	\$2,496,000
Expand and pave parking area, 25 cars	66,000	13,000	79,000
Howland Hill Road			
Pave 8-mile road	\$8,384,000	\$1,600,000	\$9,984,000
Greater Coastal Drive			
Realign and widen 4.5 mile section of road (gravel)	\$1,572,000	\$300,000	\$1,872,000
Del Norte Coast Redwoods State Park Entrance			
Construct new 2-mile paved access road	\$2,620,000	\$500,000	\$3,120,000
8-car parking area	27,000	5,000	32,000
entrance kiosk (100 sf)	11,000	2,000	13,000
utilities connection (200')	11,000	2,000	13,000
Obliterate existing road (1 mile)	255,000	49,000	304,000
Tall Trees Grove			
Widen and pave 5.5 miles of access road	\$5,764,000	\$1,100,000	\$6,864,000
Expand and pave parking area, 40 cars	105,000	20,000	125,000
Subtotal	\$32,113,000	\$6,129,000	\$38,242,000
FACILITIES			
Hiouchi Information Center			
Construct center (2,000 sf)	\$681,000	\$130,000	\$811,000
interpretive media (400 sf)	131,000	25,000	156,000
30-car parking area	99,000	19,000	118,000
access road (300')	75,000	14,000	89,000
water connect (300')	12,000	2,000	14,000
septic system	39,000	8,000	47,000
landscape development (25% of net building cost)	170,000	33,000	203,000
Mill Creek Visitor Center			
Construct center (700 sf)	\$238,000	\$46,000	\$284,000
interpretive media (100 sf)	33,000	6,000	39,000
8-car parking area	27,000	5,000	32,000
access road (50')	12,000	2,000	14,000
water connection (50')	2,000	1,000	3,000
septic system	26,000	5,000	31,000
landscape development (25% of net building cost)	60,000	12,000	72,000
Operational Facilities			
Aubell:			
Construct shop/office (900 sf)	\$177,000	\$34,000	\$211,000
Expand vehicle/equipment storage yard (1000 sf)	20,000	4,000	24,000
Requa Maintenance Facilities:			
Upgrade utility systems (water, sewer, & electric)	1,572,000	300,000	1,872,000
Stabilize existing structures	1,179,000	225,000	1,404,000
Construct support facilities (parking, storage, etc.)	328,000	62,000	390,000
Subtotal	\$4,881,000	\$933,000	\$5,814,000
ALTERNATIVE 4 GRAND TOTAL	\$58,363,000	\$11,142,000	\$69,505,000